

FIRST RECORD OF *APTERICHTUS ANGUIFORMIS* (ANGUILLIFORMES, OPHICHTHIDAE) IN THE SOUTHERN TYRRHENIAN SEA. Luca CASTRIOTA and Silvana CAMPAGNUOLO, Istituto Centrale per la Ricerca scientifica e tecnologica Applicata al Mare, ICRAM, STS Palermo, via Emerico Amari 124, 90139 Palermo, ITALY.

Key-words. - Ophichthidae, *Apterichtus anguiformis*, MED, Southern Tyrrhenian Sea, First record.

In date 5th November 1996, one specimen of *Apterichtus anguiformis* (Peters, 1877) (TL = 290 mm; TW = 3.95 g) was collected with a van Veen grab, at -50 m of depth, on a fine gravel bottom in the Ustica Island (38°41'42''N - 13°09'50''E). The specimen is deposited in the Ustica Marine Reserve Laboratory (N.I., new collection). Measurements were taken according to Blache and Bauchot (1972) and compared with

two Mediterranean specimens (the first from Nice, the other's origin is unknown) described as *Verma anguiformis* (Peters, 1877) by these authors and presented in table I. Meristic data are listed in table II; vertebral counts are taken from radiographs. Both meristic and morphological features correspond as well as those of the two specimens examined by Blache and Bauchot (1972).

In the Mediterranean Sea the genus *Apterichtus* Duméril, 1806 (Bauchot, 1986) is represented by two species: *A. anguiformis* (Peters, 1877) and *A. caecus* (Linnaeus, 1758) that have been confused with each other and classified with different names by various authors. It is impossible to attribute many references of these authors to one or the other species (Blache and Bauchot, 1972; Blache *et al.*, 1973; Leiby, 1990). As reported by Blache and Bauchot (1972), *A. anguiformis* was recorded in the Mediterranean Sea by Moreau (1881) as *Sphagebranchus caecus* (not L., 1758) from Nice and by Lozano Rey (1947) as *Caecula caeca* (not L., 1758) from Mahón. It was also recorded in the Eastern Atlantic by Bini (1970) as *Caecula anguiformis* (Peters, 1876) and

Table I. - Morphometric data of *Apterichtus anguiformis* from Ustica Island (Italy) compared with two Mediterranean specimens reported by Blache and Bauchot (1972) from Nice and from an unknown locality.

Measurements	Ustica	Nice	unknown
Total length (mm)	290	431	493
In % of the preanal length:			
Body height	3.4	1.9	2.8
Trunk length	86.9	87.1	87.7
Head length	13.2	12.3	14.9
In % of the total length:			
Body height	1.7	1.0	1.4
Trunk length	42.8	41.2	44.7
Preanal length	49.3	49.5	50.7
In % of the head length:			
Body height	26.1	15.7	21.6
Preorbital length	19.2	18.0	20.7
Eye diameter	5.3	4.3	7.4
Interorbital distance	7.7	7.7	8.6
Mouth opening length	36.2	34.5	37.8
Gill opening height	7.5	6.6	9.7
Isthmus width	5.9	3.2	6.5

by Blache *et al.* (1970) as *Sphagebranchus sp. aff. anguiformis* (Peters, 1876).

The distribution of *A. anguiformis* is reported by Bauchot (1986) in the Balearic Islands, Nice and probably all western Mediterranean, and in the eastern Atlantic probably from Morocco southward to Cape Verde archipelago. Golani (1996) reports a specimen (TL = 114 mm; preanal/TL = 44.7%) from the coast of Israel.

Its habit is not well known: it is burrower in sand at 10-40 m of depth, spawning in May-June, and its feeding habit is unknown (Bauchot, 1986, 1987). We found it in a fine gravel bottom sample characterized by the presence of calcareous encrusting Melobesiae and the characteristic components of the coastal-detritic biocoenosis mixed with current-loving species (Castriota *et al.*, in press). The stomach content was composed of 4 amphipods (3 *Cheirocratus* sp., 1 *Dexamine spinosa*) and 3 polychaetes (1 *Syllis* sp., 1 *Notomastus* sp., 1 Eunicidae); these prey items were also well represented in the sample collected with the grab. This is the first record of *A. anguiformis* in the Southern Tyrrhenian Sea.

Table II. - Meristic data of *Apterichtus anguiformis* from Ustica Island (Italy).

Counts	Ustica
Total vertebrae	156
Lateral line pores:	
prebranchial	4+2
preanal	72
postanal	77
Head pores:	
supratemporal	3
preorbital	3
supraorbital	1
postorbital	2
preoperculomandibular	7
median interorbital	1
prenostril	1
internostril	2
postnostril	3

Acknowledgements. - We are grateful to the specialists Mme M.L. Bauchot and Dr. J.-C. Quéro for the useful advises and to Dr. M. Midiri and Dr. L. Polizzi (Policlinico Universitario, Palermo) for the preparation of radiographs. Sampling was directed by Dr. G. Sunseri; the investigation was funded by the Ustica Marine Reserve and its support and permission to publish these data are gratefully acknowledged.

REFERENCES

- BAUCHOT M.-L., 1986. - Ophichthidae. In: Fishes of the North-Eastern Atlantic and the Mediterranean/Poissons de l'Atlantique du Nord-Est et de la Méditerranée, Vol. 2 (Whitehead P.J.P., Bauchot M.-L., Hureau J.-C., Nielsen J. & E. Tortonese, eds), pp. 577-585, UNESCO, Paris.
- BAUCHOT M.-L., 1987. - Ophichthidae. In: Fiches FAO d'identification des espèces pour les besoins de la pêche. (Révision 1). Méditerranée et Mer Noire. Zone de pêche 37. Vol. II. Vertébrés (Fisher W., Bauchot M.-L. & M. Schneider, eds), pp. 1222-1229, FAO-CEE, Roma.
- BINI G., 1970. - Atlante dei Pesci delle Coste Italiane. Mondo Sommerso Editrice Roma, Vol. II: 308 p.
- BLACHE J. & M.-L. BAUCHOT, 1972. - Contribution à la connaissance des Poissons Anguilliformes de la côte occidentale d'Afrique. 13^e note: les genres *Verma*, *Apterichthys*, *Ichthyapus*, *Hemerorhinus*, *Caecula*, *Dalophis* avec la description de deux genres nouveaux (Fam. des Ophichthidae). *Bull. IFAN*, 34(3), sér A: 692-773.
- BLACHE J., BAUCHOT M.-L. & L. SALDANHA, 1973. - Ophichthidae. In: Check List of the Fishes of the North-Eastern Atlantic and of the Mediterranean/Catalogue des Poissons de l'Atlantique du Nord-Est et de la Méditerranée, Vol. I (Hureau J.-C. & T. Monod, eds), pp. 247-251, UNESCO, Paris.
- BLACHE J., CADENAT J. & A. STAUCH, 1970. - Clés de détermination des poissons de mer signalés dans l'Atlantique oriental entre le 20^e parallèle nord et le 15^e parallèle sud. *Faune trop.*, ORSTOM, Paris, Vol. XVIII: 479 p.

- CASTRIOTA L., SUNSERI G. & P. VIVONA. - Primi dati sui popolamenti zoobentonici dei fondi mobili dell'area compresa tra Punta Gavazzi e Punta dell'Arpa (Isola di Ustica, Tirreno Meridionale). *Biol. Mar. Medit.*, in press.
- GOLANI D., 1996. - The marine ichthyofauna of the Eastern Levant. History, inventory, and characterization. *Isr. J. Zool.*, 42: 15-55.
- LEIBY M., 1990. - Ophichthidae. In: Check List of the Fishes of the Eastern Tropical Atlantic/Catalogue des Poissons de l'Atlantique oriental tropical, Vol. 1 (Quéro J.-C., Hureau J.-C., Karrer C., Post A. & L. Saldanha, eds), pp. 176-192, UNESCO, Paris; SEI, Paris; JNICT-Lisbon.
- LOZANO REY L., 1947. - Peces ganoideos y fisostomos. *Mem. R. Acad. Ciencias ex. fis. nat.*, Vol. XI: 839 p.
- MOREAU E., 1881. - Histoire naturelle des Poissons de la France. Edit. G. Masson. Paris, Vol. III: 697 p.

Reçu le 24.02.1998.

Accepté pour publication 24.04.1998.